

**Table 1: Summary of Used Nuclear Fuel Disposition Research and Development Subprogram<sup>1</sup>**

	Activity	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>2</sup>	\$ Planned (FY14)	Legal Authority
	<b>Used Fuel Research and Development Activities (Table 2 below)</b>	\$27,255,983	\$37,873,898	\$21,416,061	\$17,485,672	\$30,000,000	See legal authorities listed for each activity in Table 1 below.
	<b>Nuclear Fuels Storage and Transportation Activities (Table 3 below)</b>	\$0	2,370,584	\$8,508,012	\$22,034,605	\$30,000,000	See legal authorities listed for each activity in Table 2 below.

<sup>1</sup> The subprogram consists of two groups of activities: Used Fuel Research and Development Activities (Table 2 below) and Nuclear Fuels Storage and Transportation Activities (Table 3 below).

Used Fuel Research and Development Activities are generic research and development activities being carried out under the Atomic Energy Act of 1954 and are not radioactive waste disposal activities under titles I and II of the Nuclear Waste Policy Act of 1982 (NWP). Therefore, no funds from the Nuclear Waste Fund have been or will be provided by the Department for these activities. See NWP, sec. 302(d)(2). The Administration's FY 2014 Budget requests \$30 million of general revenue funds for Used Fuel Research and Development Activities (see "Used nuclear fuel disposition research and development" on page NE-45 of DOE's FY 2014 Congressional Budget Request).

Nuclear Fuels Storage and Transportation Activities, which began in FY 2012, are radioactive waste disposal activities under titles I and II of the NWP. Section 302(d) provides for the use of the Nuclear Waste Fund with respect to these activities. However, in the Consolidated Appropriations Act, 2012, Congress appropriated the use of general revenue funds for these activities. In FY 2013, these activities continued on the basis of funding appropriated by several Continuing Resolutions. The Administration's FY 2014 Budget requests \$30 million for Nuclear Fuels Storage and Transportation Activities (see "Nuclear high-level waste management and disposal system activities" on pages NE-45 and NE-46 of DOE's FY 2014 Congressional Budget Request). Of this amount, the portion allocated for commercial activities (\$24 million) is requested from the Nuclear Waste Fund and the remaining \$6 million is allocated for defense activities.

<sup>2</sup> These amounts reflect carry over general revenue funds from previous years

**Table 2: Used Fuel Research and Development Activities**

	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
<b>Cross cutting Activities for all the UFD Campaign</b>	<b>Total for Cross cutting Activities for all the UFD Campaign</b>	<b>\$2,416,145</b>	<b>\$3,228,942</b>	<b>\$893,037</b>	<b>\$2,394,585</b>	See footnote 3	
	<b>Reporting, budgeting, planning</b>	\$1,845,164	\$2,648,240	\$724,024	\$2,224,528	See footnote 3	<ul style="list-style-type: none"> <li>- Atomic Energy Act of 1954 ("AEA") §§ 3, 31, 53, 55, 91, 161</li> <li>- Energy Reorganization Act of 1974 ("ERA") § 104</li> <li>- Department of Energy Organization Act ("DOEOA"): 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>International</b>	\$570,981	\$580,702	\$169,013	\$170,057	See footnote 3	
	<ul style="list-style-type: none"> <li>• Report on the Status of UFD Campaign International Activities in Disposal Research (1/31/2014)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOEOA: 42 U.S.C. §§ 7133, 7151</li> </ul>

<sup>3</sup> See footnote 2 above.

<sup>4</sup> As explained in footnote 1 above, the Administration's FY 2014 Budget requests \$30 million for used fuel research and development activities. See "Used nuclear fuel disposition research and development" on page NE-45 of DOE's FY 2014 Congressional Budget Request. The FY 2014 Budget contains no further breakdown of how these funds will be allocated.

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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
Repository and Disposal Research	<b>Total for Repository and Disposal Research</b>	<b>\$15,946,534</b>	<b>\$21,713,234</b>	<b>\$12,508,403</b>	<b>\$9,365,545</b>	See footnote 3	
	<b>Thermal Load Management &amp; Design Concepts</b>	\$2,851,207	\$1,388,840	\$597,266	\$390,056	See footnote 3	
	<ul style="list-style-type: none"> <li>Reference Disposal Concepts: Description and Thermal Analysis (11/15/2012)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>Generic Engineered Barrier System Evaluations</b>	\$6,801,314	\$4,725,070	\$2,428,258	\$1,835,145	See footnote 3	
	<ul style="list-style-type: none"> <li>EBS Model Development and Eval Report (9/27/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Used Fuel Degradation: Experimental and Modeling Report (10/17/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>International Collaborations on Engineered</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
Repository and Disposal Research	Barrier Systems: Experimental and Modeling Investigations Report (12/11/2013)						
	<b>Generic Natural System Evaluations</b>	\$1,269,854	\$4,806,911	\$3,340,519	\$2,642,504	See footnote 3	
	<ul style="list-style-type: none"> <li>Report on a GIS Database for Alternative Host Rocks and Sensitivity to Potential Siting Guidelines (12/6/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Report on modeling fluid flows in natural system, model validation and demonstration</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
<b>Repository and Disposal Research</b>	n (12/15/2013)						
	<ul style="list-style-type: none"> <li>Report on Fluid flow model development for representative geologic media (12/16/2012)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Report on THMC modeling of the near field evolution of a generic clay repository: Model validation and demonstration (8/15/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Report on modeling radionuclide interaction and transport</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
<b>Repository and Disposal Research</b>	in representative geologic media (9/15/2013)						
	<ul style="list-style-type: none"> <li>Natural System Evaluations International Collaborations Progress Report (12/9/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>Generic Disposal System Level Modeling</b>	\$3,170,337	\$2,894,146	\$1,729,923	\$1,296,454	See footnote 3	
	<ul style="list-style-type: none"> <li>Generic Safety Case Report (1/31/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Generic Disposal System Modeling Report (11/16/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>Inventory</b>	\$506,525	\$2,346,904	\$333,466	\$246,463	See footnote 3	<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
	<b>Low Level Radioactive Waste Disposition from Repackaging DPCs</b>	\$451,015	\$251,149	\$76,950	\$321,801	See footnote 3	
	<ul style="list-style-type: none"> <li>• LLW Radionuclide Inventory Data (9/30/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>DPC Direct Disposal Investigations</b>	\$0	\$694,400	\$756,099	\$489,249	See footnote 3	
	<ul style="list-style-type: none"> <li>• Preliminary Report on DPC Disposal Alternatives (8/30/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>Deep Borehole Disposal</b>	\$0	\$410,877	\$418,920	\$502,702	See footnote 3	
	<ul style="list-style-type: none"> <li>• Deep Borehole Disposal Research RD&amp;D Needs and Criteria and Alternatives for Demonstration Site</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
	Selection (10/25/2013)						
	<b>Salt R&amp;D</b>	\$896,281	\$4,194,938	\$2,827,003	\$1,641,172	See footnote 3	
	<ul style="list-style-type: none"> <li>Couple Model for Heat and Water Transport in a HLW Repository (9/30/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Brine Migration Experimental Studies for Salt Repositories Report – FY13 (9/25/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>RD&amp;D for the Advancement of Science and Engineering Supporting</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>



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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
	Geologic Disposal in Bedded Salt – March 2013 Workshop Outcomes (5/31/2013)						
	<ul style="list-style-type: none"> <li>Proceedings: 3<sup>rd</sup> US/German Workshop on Salt Repository Research, Design, and Operation (3/29/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Establishing the Technical Basis for Disposal of Heat-generating Waste in Salt (7/29/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Coupled Thermal-Hydrological-Mechanical Processes in</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
	Salt (11/15/2013)						
Storage and Transportation Research	<b>Total for Storage and Transportation Research</b>	<b>\$8,893,304</b>	<b>\$12,931,722</b>	<b>\$8,014,621</b>	<b>\$5,725,542</b>	See footnote 3	
	<b>Field Demonstration</b>	\$3,726,807	\$3,009,574	\$1,767,787	\$1,545,674	See footnote 3	
	<ul style="list-style-type: none"> <li>Long Term Used Nuclear Fuel Storage Viability Report (11/15/2012)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>Storage and Transportation Experiments</b>	\$2,504,926	\$3,101,878	\$3,517,609	\$2,612,797	See footnote 3	
	<ul style="list-style-type: none"> <li>Data report on ring compression and DBTT tests for PWR cladding (9/30/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Data report on hydrogen doping and irradiation in HFIR (9/30/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<ul style="list-style-type: none"> <li>Data report on hydrogen doping/distribution tests (4/30/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
<b>Storage and Transportation Research</b>	<ul style="list-style-type: none"> <li>Data report on corrosion testing of stainless steel SNF storage canisters (9/30/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>Storage and Transportation Engineering Analysis</b>	\$0	\$3,922,498	\$1,399,448	\$923,566	See footnote 3	
	<ul style="list-style-type: none"> <li>Report on methodology to estimate used fuel cladding hydride reorientation during thermal excursions simulated during drying (8/30/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>Transportation</b>	\$1,611,502	\$2,634,476	\$1,189,691	\$446,088	See footnote 3	
	<ul style="list-style-type: none"> <li>Conduct assembly shaker table test. Prepare test report. (6/30/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>Security</b>	\$1,050,068	\$263,295	\$140,087	\$197,417	See footnote 3	

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	Activity, Deliverable, and Completion Date	\$ (FY11)	\$ (FY12)	\$ (FY13)	\$ Planned FY13 <sup>3</sup>	\$ Planned (FY14) <sup>4</sup>	Legal Authority
	<ul style="list-style-type: none"> <li>Review of Security Strategies for Used Fuel Storage and Transportation for a Consolidated Storage Facility (06/21/2013)</li> </ul>						<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> </ul>
	<b>Grand Total</b>	<b>\$27,255,983</b>	<b>\$37,873,898</b>	<b>\$21,416,061</b>	<b>\$17,485,672</b>	<b>\$30,000,000</b>	

**Table 3: Nuclear Fuels Storage and Transportation Activities**

	Activity, Deliverable, and Completion Date	\$ FY12)	\$ (FY13)	\$ Planned (FY13) <sup>5</sup>	\$ Planned (FY 14) <sup>6</sup>	Legal Authority
<b>Storage</b>	Evaluate Alternative Generic Design Concepts for Consolidated Interim Storage. <ul style="list-style-type: none"> <li>• AREVA Design Concepts Report (2/28/13)</li> <li>• EnergySolutions Design Concepts Report (2/28/13)</li> <li>• Shaw Design Concepts Report (2/28/13)</li> <li>• AREVA Transfer of UNF Stored in Non-Disposable Canister Report (8/30/13)</li> <li>• Shaw Transfer of UNF Stored in Non-Disposable Canister Report (8/30/13)</li> <li>• A Project Concept for Nuclear Fuels Storage and</li> </ul>	408,007	1,940,262	3,625,227	See footnote 4	<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWP A § 142(b)</li> </ul>

<sup>5</sup> See footnote 2 above.

<sup>6</sup> As explained in footnote 1 above, the Administration's FY 2014 Budget requests \$30 million for nuclear fuels storage and transportation activities. See "Nuclear high-level waste management and disposal system activities" on pages NE-45 and NE-46 of DOE's FY 2014 Congressional Budget Request. The FY 2014 Budget contains no further breakdown of how these funds will be allocated.

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	Activity, Deliverable, and Completion Date	\$ FY12)	\$ (FY13)	\$ Planned (FY13) <sup>5</sup>	\$ Planned (FY 14) <sup>6</sup>	Legal Authority
	Transportation (6/13/13)					
	Continue the conceptual design for a generic storage facility and supporting transportation system.	0	0	8,000,000 <sup>7</sup>		<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA §§ 142(b), 180</li> </ul>
	Develop Pilot Project Conceptual Plan (includes functions and requirements, inventory baseline)	0	244,319	307,717	See footnote 4	<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA § 142(b)</li> </ul>
<b>Transportation</b>	Transportation Institutional Activities <ul style="list-style-type: none"> <li>• Draft Revised Section 180(c) Policy (9/30/13)</li> <li>• Develop Draft National Transportation Plan (9/30/13)</li> <li>• Draft Preliminary Routes for Shipments from Shutdown Reactors (9/30/13)</li> <li>• Develop routing models for shipment of used nuclear fuel (9/30/13)</li> </ul>	137,504	361,466	1,375,395	See footnote 4	<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA § 180</li> </ul>

<sup>7</sup>Unobligated funds for this activity will not be allocated until FY 2014.

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	Activity, Deliverable, and Completion Date	\$ FY12)	\$ (FY13)	\$ Planned (FY13) <sup>5</sup>	\$ Planned (FY 14) <sup>6</sup>	Legal Authority
	Update the National Transportation Plan to address initial shipments from shutdown reactors to a generic consolidated storage facility.					<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA § 180</li> </ul>
	Cooperative agreements with State Regional Groups and tribes	29,634	341,879	1,495,366	See footnote 4	<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA § 180</li> </ul>
	Evaluate shipment of used fuel from shutdown reactor sites <ul style="list-style-type: none"> <li>• Preliminary Evaluation of Removing UNF from Nine Shutdown sites (10/31/12)</li> <li>• Stranded Site De-inventorying Report (9/30/13)</li> </ul>	213,598	227,446	826,810	See footnote 4	<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA § 180</li> </ul>
	Complete an analysis for initial used fuel shipments from shutdown reactor sites.					<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA § 180</li> </ul>
	Assess Transportation Hardware needs (casks and	0	6,692	200,000	See footnote 4	<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ FY12)	\$ (FY13)	\$ Planned (FY13) <sup>5</sup>	\$ Planned (FY 14) <sup>6</sup>	Legal Authority
	rolling stock) <ul style="list-style-type: none"> <li>Preliminary Hardware Alternatives Analysis Report (9/30/13)</li> </ul>					<ul style="list-style-type: none"> <li>DOEOA: 42 U.S.C. §§ 7133, 7151</li> <li>NWPA § 180</li> </ul>
	Review of full scale rail cask severe accident tests <ul style="list-style-type: none"> <li>Review of Full Scale Rail Cask Severe Accident Test Studies Report (7/26/13)</li> </ul>	0	77,568	100,000	See footnote 4	<ul style="list-style-type: none"> <li>AEA §§ 3, 31, 53, 55, 91, 161</li> <li>ERA § 104</li> <li>DOEOA: 42 U.S.C. §§ 7133, 7151</li> <li>NWPA § 180</li> </ul>
	Development of Codes to support Transportation Systems <ul style="list-style-type: none"> <li>RADTRAN Model and Calculation of Occupational Dose from a Transportation Accident (8/9/13)</li> <li>TRAGIS Updated Intermodal Feasibility Study and Updated GIS Layers (9/30/13)</li> </ul>	0	400,464	900,000	See footnote 4	<ul style="list-style-type: none"> <li>AEA §§ 3, 31, 53, 55, 91, 161</li> <li>ERA § 104</li> <li>DOEOA: 42 U.S.C. §§ 7133, 7151</li> <li>NWPA § 180</li> </ul>
<b>Strategic</b>	Conduct system analyses to inform future decisions for including initial consolidated	877,732	141,513	3,593,989	See footnote 4	<ul style="list-style-type: none"> <li>AEA §§ 3, 31, 53, 55, 91, 161</li> <li>ERA § 104</li> <li>DOEOA: 42 U.S.C. §§</li> </ul>



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	Activity, Deliverable, and Completion Date	\$ FY12)	\$ (FY13)	\$ Planned (FY13) <sup>5</sup>	\$ Planned (FY 14) <sup>6</sup>	Legal Authority
	interim storage, use of standardized containers, improving efficiency of transportation <ul style="list-style-type: none"> <li>• System Architecture Evaluation (10/31/13)</li> <li>• Backend Fuel Cycle Cost Comparison (12/17/12)</li> </ul>					7133, 7151 - NWPAA §§ 142(b), 180
	Conduct system architecture and operating evaluations of various used fuel management systems.					- AEA §§ 3, 31, 53, 55, 91, 161 - ERA § 104 - DOE OA: 42 U.S.C. §§ 7133, 7151 - NWPAA §§ 111, 142(b), 180
	Collect, develop, process, and management of information needed for used nuclear fuel management system development <ul style="list-style-type: none"> <li>• Transport/Shipping Database Report (8/12/13)</li> <li>• Centralized Used Fuel Resource for Information Exchange Website (8/30/13)</li> </ul>	0	354,935	1,107,806	See footnote 4	- AEA §§ 3, 31, 53, 55, 91, 161 - ERA § 104 - DOE OA: 42 U.S.C. §§ 7133, 7151 - NWPAA §§ 111, 142(b), 180

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	Activity, Deliverable, and Completion Date	\$ FY12)	\$ (FY13)	\$ Planned (FY13) <sup>5</sup>	\$ Planned (FY 14) <sup>6</sup>	Legal Authority
	Evaluate feasibility and develop implementation plan for standardized transportation, aging, and disposal canisters <ul style="list-style-type: none"> <li>• AREVA Standardized Canister Feasibility Report (6/30/13)</li> <li>• EnergySolutions Standardized Canister Feasibility Report (6/30/13)</li> <li>• Path-forward for Standardized Canisters Recommendation Report (9/30/13)</li> </ul>	534,154	552,205	2,645,466	See footnote 4	<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA §§ 111, 142(b), 180</li> </ul>
	Continue the evaluation of standardized containers for storage, transportation, and potentially disposal.					<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA §§ 111, 142(b), 180</li> </ul>
	Expand capabilities for assessing issues related to the aging and safety of storing and transporting used nuclear fuel	0	2,407,776	2,728,039	See footnote 4	<ul style="list-style-type: none"> <li>- AEA §§ 3, 31, 53, 55, 91, 161</li> <li>- ERA § 104</li> <li>- DOE OA: 42 U.S.C. §§ 7133, 7151</li> <li>- NWPA §§ 111, 142(b), 180</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ FY12)	\$ (FY13)	\$ Planned (FY13) <sup>5</sup>	\$ Planned (FY 14) <sup>6</sup>	Legal Authority
	<ul style="list-style-type: none"> <li>Complete synchronization of computational packages (UNF-ST&amp;DARDS) (12/21/12)</li> <li>Complete Database with Documentation (UNF-ST&amp;DARDS) (3/22/13)</li> <li>Demonstration of UNF-ST&amp;DARDS Capabilities (4/26/13)</li> <li>SCALE Enhancements to support used nuclear fuel safety evaluations (9/30/13)</li> </ul>					
	General Activities to support Transportation, Siting, and Storage (Project Management, Technical Support) <ul style="list-style-type: none"> <li>Draft Project Plan (3/31/2013)</li> </ul>	0	895,307	2,502,307	See footnote 4	<ul style="list-style-type: none"> <li>AEA §§ 3, 31, 53, 55, 91, 161</li> <li>ERA § 104</li> <li>DOEOA: 42 U.S.C. §§ 7133, 7151</li> <li>NWPA §§ 111, 142(b), 180</li> </ul>
Siting	Develop data based off past siting efforts <ul style="list-style-type: none"> <li>Siting Experience Archive (3/29/13)</li> </ul>	117,730	245,863	382,270	See footnote 4	<ul style="list-style-type: none"> <li>AEA §§ 3, 31, 91, 161</li> <li>ERA § 104</li> <li>DOEOA: 42 U.S.C. §§ 7133, 7151</li> <li>NWPA §§ 111, 142(b)</li> </ul>
	Analyze and evaluate public preferences related to	52,225	310,317	752,225	See footnote 4	<ul style="list-style-type: none"> <li>AEA §§ 3, 31, 91, 161</li> <li>ERA § 104</li> <li>DOEOA: 42 U.S.C. §§</li> </ul>

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	Activity, Deliverable, and Completion Date	\$ FY12)	\$ (FY13)	\$ Planned (FY13) <sup>5</sup>	\$ Planned (FY 14) <sup>6</sup>	Legal Authority
	siting, characterization, and operation of facilities for storage and disposals <ul style="list-style-type: none"> <li>Public Preferences Study related to Siting Facilities (2/1/13)</li> <li>Public Preference Study related to Characterization and operation of Facilities (9/30/13)</li> <li>Summary of Approaches for Consent-Based Siting of Radioactive Waste Management Facilities: Evidence-Based Considerations and Case Studies (3/31/13)</li> </ul>					7133, 7151 - NWPA §§ 111, 142(b)
	Continue developing plans for a consent-based siting process.					- AEA §§ 3, 31, 91, 161 - ERA § 104 - DOE/OA: 42 U.S.C. §§ 7133, 7151 - NWPA §§ 111, 142(b)
	<b>Grand Total</b>	<b>2,370,584</b>	<b>8,508,012</b>	<b>22,034,605</b>	<b>30,000,000</b>	